ECOLOGICAL SURVEY REPORT

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF ENVIRONMENTAL SERVICES
1980 WEST BOARD STREET
COLUMBUS, OHIO 43223
(614) 466-7100

Project C-R-S / Name:	**Opportunity Corridor**
Project Identification Number (PID):	**77333**
Report Type:	**Level Two ESR**
Report Author(s):	**/Debra E White/Kevin S Schroeder**
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Date of Submission:	January 5, 2010

PROJECT SUMMARY

Location Data

ODOT District:	**District 12**
County(ies):	**Cuyahoga**
Township(s):	
Project Center (lat./lon.):	**41.486874 -81.628962**
Study Area Size (Ac):	**713 acres**

Project Description

The Opportunity Corridor Study is investigating alternatives to improve the transportation infrastructure to support the City of Cleveland's goal to revive and redevelop large tracks of vacant residential and industrial land within the City of Cleveland's southeast side. The transportation infrastructure improvements are anticipated to begin near I-490 at East 55th Street at the southwest and terminate along East 105th Street near US-322 (Chester Avenue) at the northeast. The study area boundary has been approved by ODOT Central Office. The facility, as proposed, would be a multilane urban arterial boulevard constructed at existing street grade and include signalization at major intersections. Due to high traffic volumes, alternatives are being developed at East 55th Street for an at-grade and grade separated intersection. In addition grade separation structures are proposed for locations where the new roadway crosses the existing rail lines owned and operated by Norfolk Southern (NS) and Greater Cleveland Regional Transit Authority (GCRTA). Existing roadways that intersect the new boulevard would be widened, if necessary, to accommodate the proposed traffic volumes.

In addition to the No-build alternative, conceptual alignments are being developed within the current study area. In the vicinity of E55th Street alternatives are being further developed for both at grade and grade separated intersections. These alternatives are all envisioned to have impacts to the northern limits of the St. Hyacinth Neighborhood. The limits are generally limited to the area north of Francis Avenue. In the study area east of the St. Hyacinth Neighborhood to the existing E105th/Quincy Avenue intersection, the study area is bound by the GCRTA Red line/NS Nickel Plate line trench to the north, the overhead GCRTA Blue/Green line to the south, and the overhead CSX mainline to the east. The elevated NS mainline tracks bisect this area. West of the NS mainline the alternatives are generally east-west in nature and include the potential reuse and widening of Grand Avenue or a parallel route located 1-2 blocks further south in the vicinity of Rawlings Avenue. East of the NS mainline, the alignments generally proceed in a northeasterly direction toward the intersection of E105th Street and Quincy Avenue. Within this section of the study area, the alternatives are either on a completely new alignment or they will utilize a portion of existing Woodland Avenue. These alternatives include alignments both northeast and southwest of the existing Kenneth Johnson Recreation Center. North of Quincy Avenue the existing E105th Street corridor is common to each alternative; however, the alignments will consist of symmetric, eastern, and western widening of the existing roadway.

Ecological Impact Summary (Impacts may be preliminary and subject to revision)

Impacts may occur to potentially jurisdictional ditches. No other significant ecological impacts are anticipated from implementation of the proposed project.

LITERATURE REVIEW

Literature Source(s) Reviewed (check all that apply)		Results of Review	Map Included In Appendix
☑	Land Cover Mapping	(list on **Land Use/Cover Table**)	**YES**
☑	Ecoregion Map	List Ecoregion(s): **61a. Erie Lake Plain** **(Choose an Ecoregion)**	**NO**
☑	Geological Maps of Ohio	**List Physiographic Region(s):** **8.0 Erie Lake Plain** **(Choose Physiographic Region)**	**NO**
☑	USGS 7.5 Minute Topographic Quadrangle Maps	List quadrangle(s): Cleveland South East Cleveland Shaker Heights	**YES**
☑	County Soil Survey	Mapped hydric soils within study area? **YES** **Only soils with major hydric components.**	**YES**
☐	Ohio Water Quality Standards (Ohio Administrative Code, Chapter 3745-1)		Not Applicable
☐	Biological and Water Quality Reports	List reports that cover study area (if applicable):	Not Applicable
☑	Hydrologic Unit Code(s) (HUC)	List 14 Digit HUCs within study area: 04110002060050 & 04110003010010	**YES**
☑	Total Maximum Daily Load (TMDL) Program	List TMDL status of study area (If applicable): **Final report approved by USEPA / None**	**NO**
☑	National and State Wild and Scenic River lists, and the Nationwide Rivers Inventory (NRI)	List river(s) within or near the study area (if within applicable reach): **Not Applicable** **(Choose River)**	**NO**
☑	Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM)	Does the study area that lie within a 100 year floodplain**: YES**	**YES**
☑	Ohio's Coastal Zone Management Area	Does the study area that lie within the Coastal Zone management Area**: YES**	**NO**
☑	National Wetlands Inventory (NWI) and or Ohio Wetland Inventory Mapping (OWI)	OWI indicates shrub-scrub wetlands NWI indicates no wetlands	**YES**
☑	ODNR Division of Natural Areas and Preserves Natural Heritage Database	Are there records for listed species within 1 mile of the study area? **YES** Summarize on **State Listed Species Table**	**YES**
☑	Federally Endangered, Threatened, Proposed and Candidate Species in Ohio	List and Summarize on **Federally Listed Species Table**	**YES**

Land Use/Cover Table

List the Land Use/Cover types found within the study area (based on descriptions form NLCD ,2001):	Acres
Developed, Open Space - Includes areas with a mixture of some constructed materials, but mostly vegetation in the form of lawn grasses. Impervious surfaces account for less than 20% of total cover. (large-lot single-family housing units, parks, etc...)	39.8
Developed, Low Intensity - Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 20-49% of total cover. These areas most commonly include single-family housing units.	233.9
Developed, Medium Intensity - Includes areas with a mixture of constructed materials and vegetation. Impervious surfaces account for 50-79% of the total cover. These areas most commonly include single-family housing units.	298.2
Developed, High Intensity - Includes highly developed areas where people reside or work in high numbers. Examples include apartment complexes, row houses and commercial/industrial. Impervious surfaces account for 80 to100% of the total cover.	141.5

FIELD METHODS

Field Investigator Name(s):	Debra E. White / Kevin S. Schroeder
Affiliation:	Michael Baker Jr., Inc.
Date(s) of Field Work:	October 5 - 7, 2009
Weather Conditions:	Mostly sunny, seasonably warm

Check All that apply

Stream Survey (Habitat and Biology)

- ☐ Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams (v 1.0) (OEPA 2002)
- ☐ Methods for Assessing Habitat in Flowing Waters: Using the Qualitative Habitat Evaluation Index (QHEI). (OEPA 2006)
- ☐ Biological Criteria for the Protection of Aquatic Life: Volume I (OEPA 1987a), Volume II (OEPA 1987b, 2008a), Volume III (OEPA 1989, 2008b),
- ☑ ODOT Ecological Manual: Sections 203.2.3.1-Stream, 203.2.3.5-Fishes, 203.2.3.6-Macrobenthos, 203.2.3.7-Mussels (ODOT 2009)
- ☐ Other Methods (describe and cite):

Wetland Delineation and Classification

- ☑ Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1 (Environmental Laboratory 1987)

Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual:

- ☐ Midwest Region (Environmental Laboratory 2008)
- ☐ Northcentral and Northeast
- ☐ Eastern Mountains and Piedmont

- ☐ Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et.al. 1979)
- ☐ Ohio Rapid Assessment Method for Wetlands v. 5.0, User's Manual and Scoring Forms (OEPA 2001)
- ☐ Other Methods (describe and cite):

Other Waters

- ☑ ODOT Ecological Manual: Sections 203.2.3.3-Ditches/Swales, 203.2.3.4-Ponds/Lakes (ODOT 2009)
- ☐ Other Methods (describe and cite):

Terrestrial

- ☑ ODOT Ecological Manual: Section 203.2.3.4-Terrestrial Ecology (ODOT 2009)
- ☐ Other Methods (describe and cite):

Listed Species

- ☑ ODOT Ecological Manual: Sections 203.2.3.5-Listed Species (ODOT 2009)
- ☐ Other Methods (describe and cite):

FIELD DATA COLLECTION RESULTS

Aquatic Ecology

Streams

Were any streams identified within the project study area? (If NO, delete the **Stream Table**)	**NO**
Total number of streams within the study area:	Enter Number
Total length of streams within the study area (linear feet):	Enter Length

Wetlands

Were any wetlands identified within the project study area? (If NO, delete the **Wetland Table**)	**NO**
Total number of wetlands within the study area:	Enter Number
Total area of wetlands within the study area (acres):	Enter Area

Potentially Jurisdictional Ditches

Were any potentially jurisdictional ditches identified within the project study area? (If NO, delete the **Potentially Jurisdictional Ditch Table**)	**YES**
Total number of potentially jurisdictional ditches within the study area:	3
Total area of potentially jurisdictional ditches within the study area (acres):	0.11

Ponds

Were any ponds identified within the project study area? (If NO, delete the **Pond Table**)	**NO**
Total number of ponds within the study area:	Enter Number
Total area of ponds within the study area (acres):	Enter Area

Aquatic Life

Were any fish communities sampled/observed within the project study area? (If NO, delete the **Fish Table**)	**NO**
If yes, total number of fish species identified:	Enter Number
Were any aquatic macroinvertebrate communities sampled/observed within the project study area? (If NO, delete the **Macroinvertebrate Table**)	**NO**
If yes, total number of aquatic macroinvertebrate species identified:	Enter Number
Were any mussel communities sampled/observed within the project study area? (If NO, delete the **Mussel Table**)	**NO**
If yes, total number of mussel species identified:	Enter Number

Potentially Jurisdictional Ditch Table (Warning: ditches that acquire/possess an **ordinary high water mark** and become **relatively permanent waters** outside of right-of-way (upstream) should be assessed as streams and included on the **Stream Table**)										
Ditch I.D.:	**Photograph #(s):**	**Receiving Waters:**	**14-Digit HUC the Wetland is Located within (Code):**	**USACE Flow Characteristics:**	**OHWM Present:**	**Constructed Through or Drains a wetland:**	**Constructed Through a Mapped Hydric Soil Unit(s):**	**Flows Between Two or More Potential Waters of the US:**	**Average Width of Wetted Perimeter Within Study Area (ft.)**	**Total Length Within Study Area (lin. ft.):**
A		Kingsbury Run	04110002060050	Relatively Permanent Water-Seasonal	NO	NO	NO Udorthents, loamy	**NO**	3	1,375
Additional Information. List How the ditch connects to a Traditional Navigable Water (TNW) and any other pertinent observations :	Ditch flows to a captured stream (i.e., Kingsbury Run) via underground storm pipes. See attached Figure 8.									
B		Kingsbury Run	04110002060050	Relatively Permanent Water-Seasonal	NO	NO	NO Udorthents, loamy	**NO**	3	156
Additional Information. List How the ditch connects to a Traditional Navigable Water (TNW) and any other pertinent observations :	Ditch flows to a captured stream (i.e., Kingsbury Run) via underground storm pipes. See attached Figure 8.									
C		Kingsbury Run	04110002060050	Relatively Permanent Water-Seasonal	NO	NO	NO Udorthents, loamy	**NO**	3	92
Additional Information. List How the ditch connects to a Traditional Navigable Water (TNW) and any other pertinent observations :	Ditch flows to a captured stream (i.e., Kingsbury Run) via underground storm pipes. See attached Figure 8.									

Terrestrial Ecology

Vegetative Communities

List the number of distinct vegetative communities identified within the study area	4
Were any unique or high quality terrestrial habitats identified within the study area?	NO

Terrestrial Wildlife

Were any mammals observed within the project study area? (If NO, delete the **Mammal Table**)	**YES**
If yes, total number of species identified:	2
Were any birds observed within the project study area? (If NO, delete the **Bird Table**)	**YES**
If yes, total number of bird species identified:	8
Were any reptiles observed within the project study area? (If NO, delete the **Reptile Table**)	**NO**
If yes, total number of reptile species identified:	Enter Number
Were any amphibian communities sampled/observed within the project study area? (If NO, delete the **Amphibian Table**)	**NO**
If yes, total number of amphibian species identified:	Enter Number

Vegetative Communities Table			
Vegetative Communities found within the study area:	**Degree of Man Induced Ecological Disturbance (based on descriptions in Andreas et. al., 2004)**	**Unique, Rare, or High Quality?**	**Acres**
Developed Open Space - DS - (mown right-of-way, large-lot single-family housing units, parks, golf courses, and vegetation planted in developed settings for recreation, erosion control, or aesthetic purposes)	Extreme Disturbance/Ruderal Community (dominated by opportunistic invaders or native highly tolerant taxa)	NO	N/A
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	This is the dominant community type found within the study area. Dominant species include: common residential grasses (*Poaceae* spp.), common plantain (*Plantago major*), and clover (*Trifolium* spp.),		
Scrub/Shrub - SS - (true shrubs, and young trees in an early successional stage)	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	N/A
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These community types are found mostly adjacent to the rail lines that run through the middle of the study area. Dominant species include: European buckthorn (*Rhamnus cathartica*), staghorn sumac (*Rhus typhina*), honeylocust (*Gleditsia triacanthos*), box elder *(Acer negundo),* and grapes (*Vitis* spp.).		
Upland Forest - UF - (uplands dominated by trees)	Low Disturbance (dominated by plants with a narrow range of ecological tolerances that typify a stable or near "climax" community)	NO	N/A
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	These upland forested areas are limited within the study area but are found on some of the steeper side slopes where development is difficult due to the steep terrain. Dominant species include: eastern cottonwood (*Populus deltoids*), northern catalpa (*Catalpa speciosa*), red maple (*Acer rubrum*), grapes (*Vitis* spp.), poison ivy (*Toxicodendron radicans*), and white wood aster (*Eurybia divaricata*).		
Grassland/Herbaceous - GH - (new fields, pastures, hay fields)	High Disturbance (dominated by widespread taxa not typical of a particular community)	NO	N/A
Community Description (list dominant species, include Anderson (1982) community classification if applicable):	This limited community type is found in areas that are transitioning from extremely disturbed conditions and are now vegetated in hardy opportunistic species, such as, ragweed (*Ambrosia artemisiifolia*), white snakeroot (*Ageratina altissima*), Queen Anne's lace (*Daucus carota*), Japanese knotweed (*Polygonum cuspidatum*), jumpseed (*Polygonum virginianum*), and Canada goldenrod (*Solidago Canadensis*).		

Vegetation Table						
Scientific Name:	**Common Name:**	**C of C:**	**Indicator Status:**	**Federally Listed:**	**State Listed:**	**Location (use vegetative community codes):**
Poaceae spp.	grasses		(Choose)	(Choose)	(Choose)	Developed Open Space
Plantago major	common plantain	*	FACU	NO	NO	Developed Open Space
Trifolium spp.)	clover		(Choose)	(Choose)	(Choose)	Developed Open Space
Rhamnus cathartica	European buckthorn	*	UPL	NO	NO	Scrub/Shrub - SS
Rhus typhina	staghorn sumac	2	UPL	NO	NO	Scrub/Shrub - SS
Gleditsia triacanthos	honeylocust	4	FAC	NO	NO	Scrub/Shrub - SS
Acer negundo	box elder	3	FAC	NO	NO	Scrub/Shrub - SS
Populus deltoides	eastern cottonwood	3	FAC	NO	NO	Upland Forest - UF
Catalpa speciosa	northern catalpa	*	FAC	NO	NO	Upland Forest - UF
Acer rubrum	red maple	2	FAC	NO	NO	Upland Forest - UF
Acer saccharum	sugar maple	5	FACU-	NO	NO	Upland Forest - UF
Toxicodendron radicans	poison ivy	1	FAC	NO	NO	Upland Forest - UF
Vitis spp.	grapes		(Choose)	NO	NO	Upland Forest - UF

Platanus occidentalis	American sycamore	7	FACW-	NO	NO	Upland Forest - UF
Salix nigra	black willow	2	FACW+	NO	NO	Upland Forest - UF
Ambrosia artemisiifolia	ragweed	0	FACU	NO	NO	Grassland/Herbaceous - GH
Solidago rugosa	wrinkleleaf goldenrod	2	FAC	NO	NO	Scrub/Shrub - SS
Solidago canadensis	Canada goldenrod	1	FACU	NO	NO	Grassland/Herbaceous - GH
Euthamia graminifolia	flat-topped goldenrod	2	FAC	NO	NO	Scrub/Shrub - SS
Symphyotrichum novae-angliae	New England aster	2	FACW-	NO	NO	Scrub/Shrub - SS
Symphyotrichum ericoides	white heath aster	2	FACU	NO	NO	Grassland/Herbaceous - GH
Eurybia divaricata	white wood aster	5	UPL	NO	NO	Upland Forest - UF
Polygonum cuspidatum	Japanese knotweed	*	FACU-	NO	NO	Scrub/Shrub - SS
Polygonum virginianum	jumpseed	3	FAC	NO	NO	Scrub/Shrub - SS
Ageratina altissima	white snakeroot	3	FACU-	NO	NO	Scrub/Shrub - SS
Erigeron annuus	daisy fleabane	0	FACU	NO	NO	Grassland/Herbaceous - GH
Daucus carota	Queen Anne’s lace	*	UPL	NO	NO	Grassland/Herbaceous - GH
Securigera varia	crown vetch	*	UPL	NO	NO	Developed Open Space

General Mammal Discussion: Impacts to mammal species in the study area are not expected to be significant. Wildlife species that utilize the study area are comprised of species that are well adapted to the urban environment, highly mobile, and transient in nature. Upon completion of the Opportunity Corridor Project, many of these tolerant, opportunistic species will likely return to the Project Area.

Mice, voles, and rabbits are generally found at the bottom of the food chain in the upland habitat typical of the study area. Mammalian carnivores include feral dogs and cats. Omnivores found in the upland areas typically include squirrels, chipmunks, skunks, and raccoons.

Mammal Table			
Scientific Name	**Common Name**	**Listing:**	**Location (use vegetative community codes):**
Peromyscus sp.	mouse	Not Listed	Developed Open Space
Tamias minimus	least chipmunk	Not Listed	Developed Open Space

General Bird Discussion: Impacts to bird species in the study area are not expected to be significant. Birds that utilize the study area are comprised of species that are well adapted to the urban environment. Upon completion of the Opportunity Corridor Project, many of these tolerant, urban-adapted species will likely return to the Project Area. The bird species known to utilize these upland areas can be described as opportunistic and include species typical of disturbed urban environments. Bird carnivores such as hawks and buzzards thrive in this type of disturbed habitat, as well as many various songbirds.

Bird Table

Scientific Name	Common Name	Date of Observation	Typical Ohio Range	Listing:	Location (use vegetative community codes):
Zenaida macroura	Mourning Dove	10/5/2009	Year-Round Resident	Not Listed	Developed Open Space
Corvus brachyrhynchos	American crow	10/5/2009	Year-Round Resident	Not Listed	Developed Open Space
Junco hyemalis	dark-eyed junco	10/7/2009	Winter Resident	Not Listed	Developed Open Space
Turdus migratorius	American robin	10/5/2009	Year-Round Resident	Not Listed	Developed Open Space
Poecile atricapilla	black-capped chickadee	10/6/2009	Year-Round Resident	Not Listed	Upland Forest
Sitta carolinensis	white-breasted nuthatch	10/5/2009	Year-Round Resident	Not Listed	Developed Open Space
Passer domesticus	house sparrow	10/5/2009	Year-Round Resident	Not Listed	Developed Open Space
Melospiza melodia	song sparrow	10/5/2009	Year-Round Resident	Not Listed	Developed Open Space

Listed Species

Federally Listed Species

Were any federally listed species observed within the study area?	NO
Were any suitable habitats for federally listed species observed within the study area?	NO
Were any **designated critical habitats** for federally listed species present within the study area?	NO
Additional summary discussion on federally listed species:	

State Listed Species

Were any state listed species observed within 1 mile of the study area?	NO
Were any state listed species observed within the study area?	NO
Were any suitable habitats for state listed species observed within the study area?	NO
Additional summary discussion on state listed species:	

Federally Listed Species Table			
Scientific Name	**Common Name**	**Listing**	**Write-up Including Impacts to Suitable Habitat (note designated critical habitat if present)**
(*Myotis sodalis*)	Indiana Bat	Endangered	After consultation with ODOT it was decided that the Indiana Bat Habitat Characterization Worksheet will not be necessary for this project. The study area is located within the urban area of the City of Cleveland in the Northeast Indiana Bat Management Unit. No hibernacula or records of captured bats were identified during DNAP's Natural Heritage Database search. The eastern border of the study area is near Rockefeller Park and Doan Brook's riparian corridor that under normal circumstances may provide a travel corridor used during migration. However, this corridor is surrounded by high intensity developed areas.

State Listed Species Table			
Scientific Name	**Common Name**	**Listing**	**Write-up Including Impacts to Suitable Habitat**
Hieracium umbellatum	Canada hawkweed	Threatened	The location provided by the Natural Heritage Database is over one -half mile away from the project area. No populations of the Canada hawkweed were identified within the study area. No impacts to the Canada hawkweed or suitable habitat are anticipated by the project.
Falco peregrinus	peregrine falcon	Threatened	The location provided by the Natural Heritage Database appears to be a roof top. The peregrine falcon was not identified within or near the study area. No impacts to the peregrine falcon or suitable habitat are anticipated by the project.

IMPACT SUMMARY

Streams Impacts

Will any streams be impacts by the project? (If NO, delete the **Stream Impact Table**)	**NO**
Total number of streams impacted by the project (list multiple alignments separately):	Enter Number
Total length of streams impacted by the project (feet):	Enter Area

Potentially Jurisdictional Ditch Impacts

Will any potentially jurisdictional ditches be impacted by the project? (If NO, delete the **Potentially Jurisdictional Ditch Impact Table**)	**YES**
Total number of potentially jurisdictional ditches impacted by the project:	3
Total area of potentially jurisdictional ditches impacted by the project (acres):	0.11

Potentially Jurisdictional Ditch Impacts Table			**Alternative Impacts (ac)**
Ditch ID	**Receiving Waters**	**USACE Flow Characteristics**	**Alternative 1**
A	Kingsbury Run (a captured stream)	Relatively Permanent Water- Seasonal	0.09
Discussion of Impacts:			
B	Kingsbury Run (a captured stream)	Relatively Permanent Water- Seasonal	0.01
Discussion of Impacts:			
C	Kingsbury Run (a captured stream)	Relatively Permanent Water- Seasonal	0.01
Discussion of Impacts:			
		Total Impact	0.11

Impacts to Aquatic Life

Discuss the types of habitat alternations that may result from construction activities (i.e. siltation, substrate modifications, banks shaping, channel relocation, etc…):
No impact to aquatic life habitat is expected from implementation of the proposed project, since no habitat exists. The potentially jurisdictional ditches are seasonal and contain no aquatic life or habitat.
Discuss the expected duration of the impacts (temporary/short term or permanent/long-term):
Any unexpected impacts to the ditches and their receiving waters will be temporary during the construction phase of the project. It should be noted that the receiving waters (i.e., Kingsbury Run) is currently captured underground and provides no habitat or functional use for aquatic life.
Discuss if the project impacts would result in the likely extirpation of any taxa from the area:
N/A
Include a general discussion of impacts to aquatic fauna (fish, mussels, aquatic macroinvertebrates):
N/A

Vegetative Community Impacts

Will any vegetative communities be impacted by the project? (If NO, delete the **Vegetative Community Impact Table**)	**YES**
Total number of vegetative communities impacted by the project:	Enter Number
Total area of vegetative communities impacted by the project (acres):	4
Describe any impacts to rare or unique vegetative communities:	
N/A	

Vegetative Community Impact Table			**Alternative Impacts (ac)**
Vegetative Community	**Disturbance Level**	**Unique, Rare, or High Quality**	**Alternative 1**
Developed Open Space - DS	Extreme Disturbance/Ruderal Community	NO	This study does not include alternatives, thus impacts are not calculated at this time.
Discussion of Impacts: The majority of the study area includes extremely disturbed ruderal community land; thus, impacts to this type community type (in regard to the ecosystem) shall be considered minimal.			
Scrub/Shrub - SS	High Disturbance	NO	This study does not include alternatives, thus impacts are not calculated at this time.
Discussion of Impacts: This highly disturbed community type is located adjacent to the existing rail lines that traverse through the project area. These areas lack diversity and provide little habitat to residential wildlife. In addition, the wildlife that utilizes this habitat community can easily relocate.			
Upland Forest - UF	Low Disturbance	NO	This study does not include alternatives, thus impacts are not calculated at this time.
Discussion of Impacts: These community types have been avoided by past construction/development activities due to these communities being located in areas of steep slopes. Avoidance of these areas for the implementation of this project will likely occur, as well.			
Grassland/Herbaceous - GH	High Disturbance	NO	This study does not include alternatives, thus impacts are not calculated at this time.
Discussion of Impacts: This highly disturbed community type is located in transitional areas that have either been left fallow or limited of restoration has been applied. These areas lack diversity and provide little habitat to residential wildlife. The wildlife that inhabits this habitat community can easily relocate.			

Impacts to Terrestrial Wildlife

Discuss any terrestrial habitat alternations that may result from construction activities:
Any terrestrial habitat alternations to occur as a result of the project shall be considered minimum based on the types and ecological disturbance that exists throughout the study area.
Discuss the expected duration of the impacts (temporary/short term or permanent/long-term):
The duration of impacts to terrestrial habitat shall be considered temporary; that is, until the wildlife relocates itself. Permanent impacts will occur but the available habitat is low quality and extremely disturbed.
Discuss if the project impacts would result in the likely extirpation of any taxa from the area:
N/A
Include a general discussion of impacts to terrestrial fauna (mammals, birds, reptiles, and amphibians):
Any of impacts to terrestrial fauna shall be considered minimal since the wildlife that utilizes the available habitat can easily relocate.

LITERATURE CITED

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APPENDICES

A - Figures	
☑	Project Location Mapping (Figure 1 and Figure 1A)
☑	Literature Review Mapping Results (Figure 2 through Figure 7)
☑	Ecological Resource Mapping (Figure 8)
☐	Other (List):
B - Photographs	
☑	Photograph Location Map
☑	Photographs
C - Data Forms	
☐	Stream Characterization/Assessment Data Forms
☐	Wetland Characterization/Assessment Data Forms
☐	Indiana Bat Habitat Characterization Worksheet
☐	Other (List):
D – Agency Data Requests	
☑	ODNR, Division of Natural Areas and Preserves – Natural Heritage Database Information Request
☐	USFWS – Federally Listed Species Information Request
☐	Other (List):

APPENDIX A
FIGURES

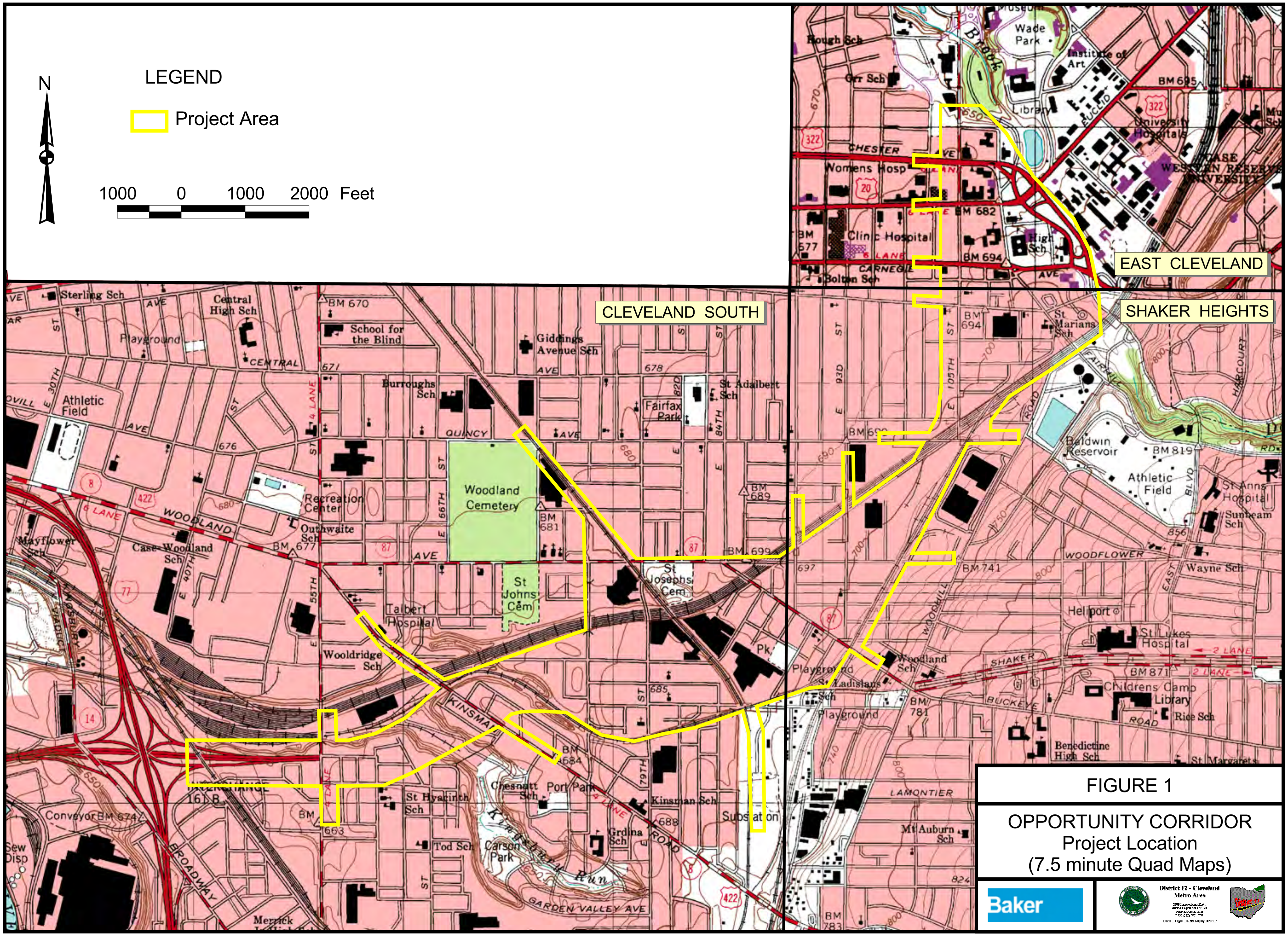


FIGURE 1

OPPORTUNITY CORRIDOR
Project Location
(7.5 minute Quad Maps)

Baker

District 12 - Cleveland Metro Area

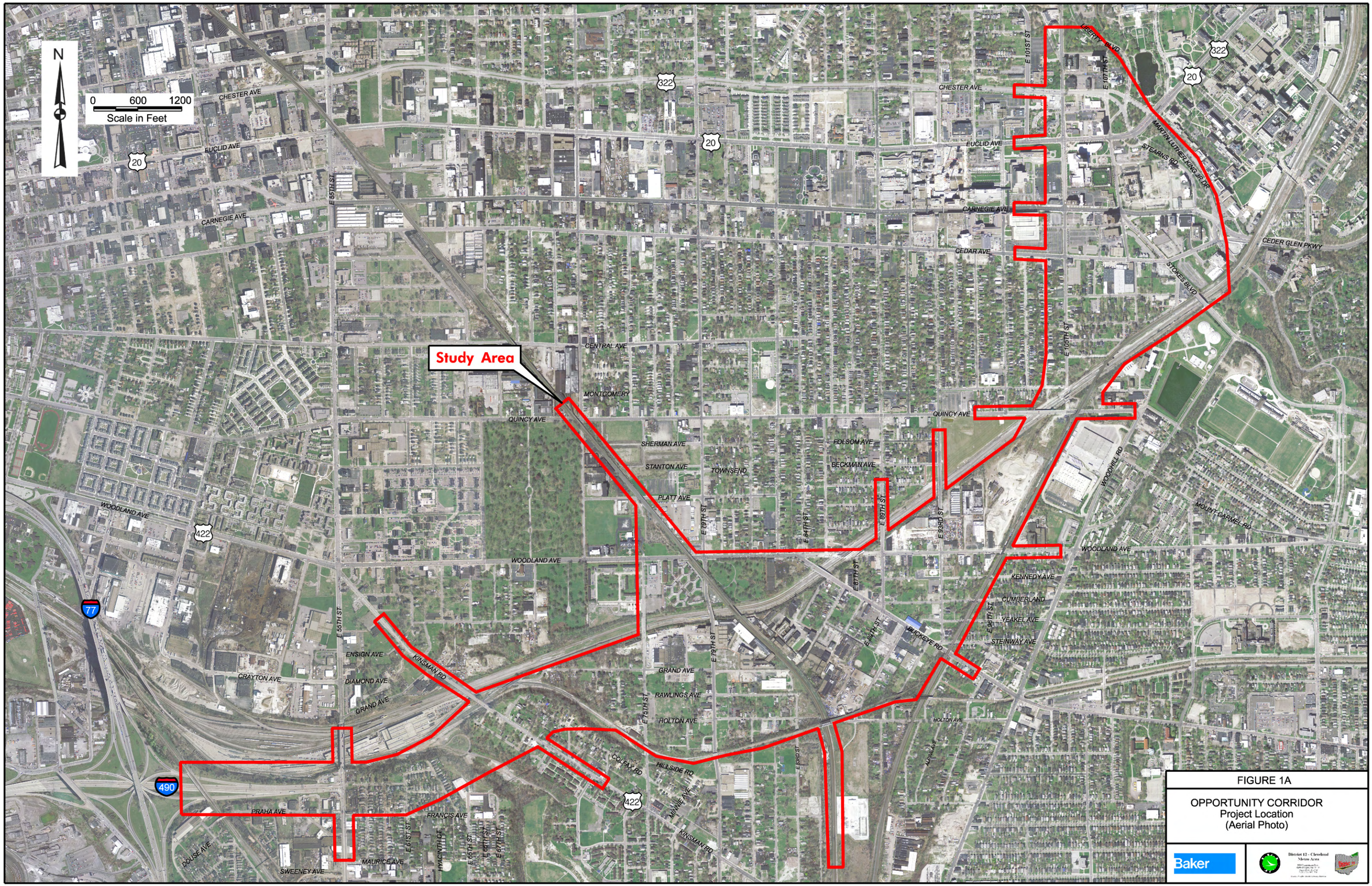


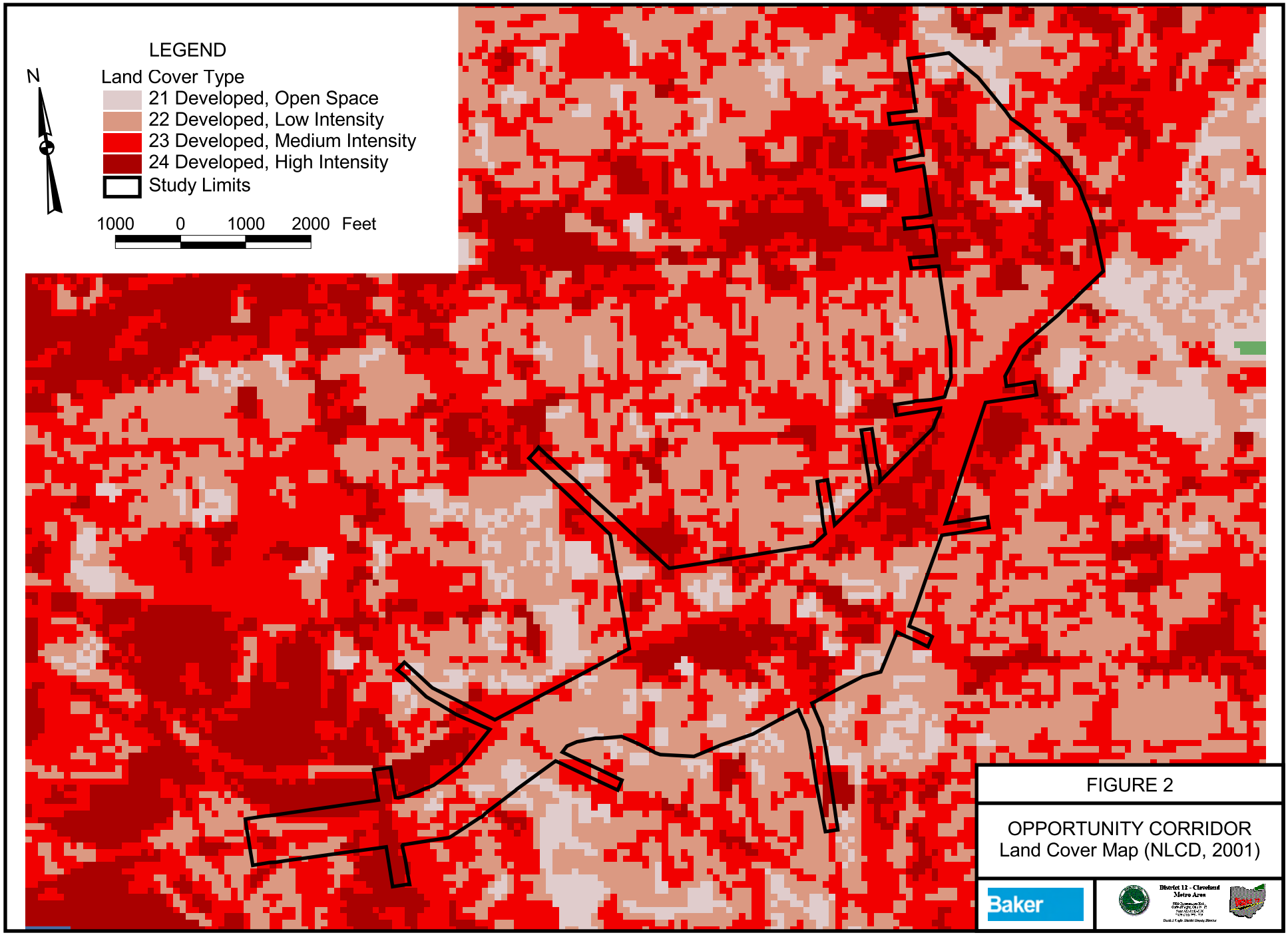
FIGURE 1A

OPPORTUNITY CORRIDOR
Project Location
(Aerial Photo)

Baker

District 12 - Cleveland Metro Area

...\OHIO\Ohio_OC\Projloc_ExIA.dgn 1/5/2010

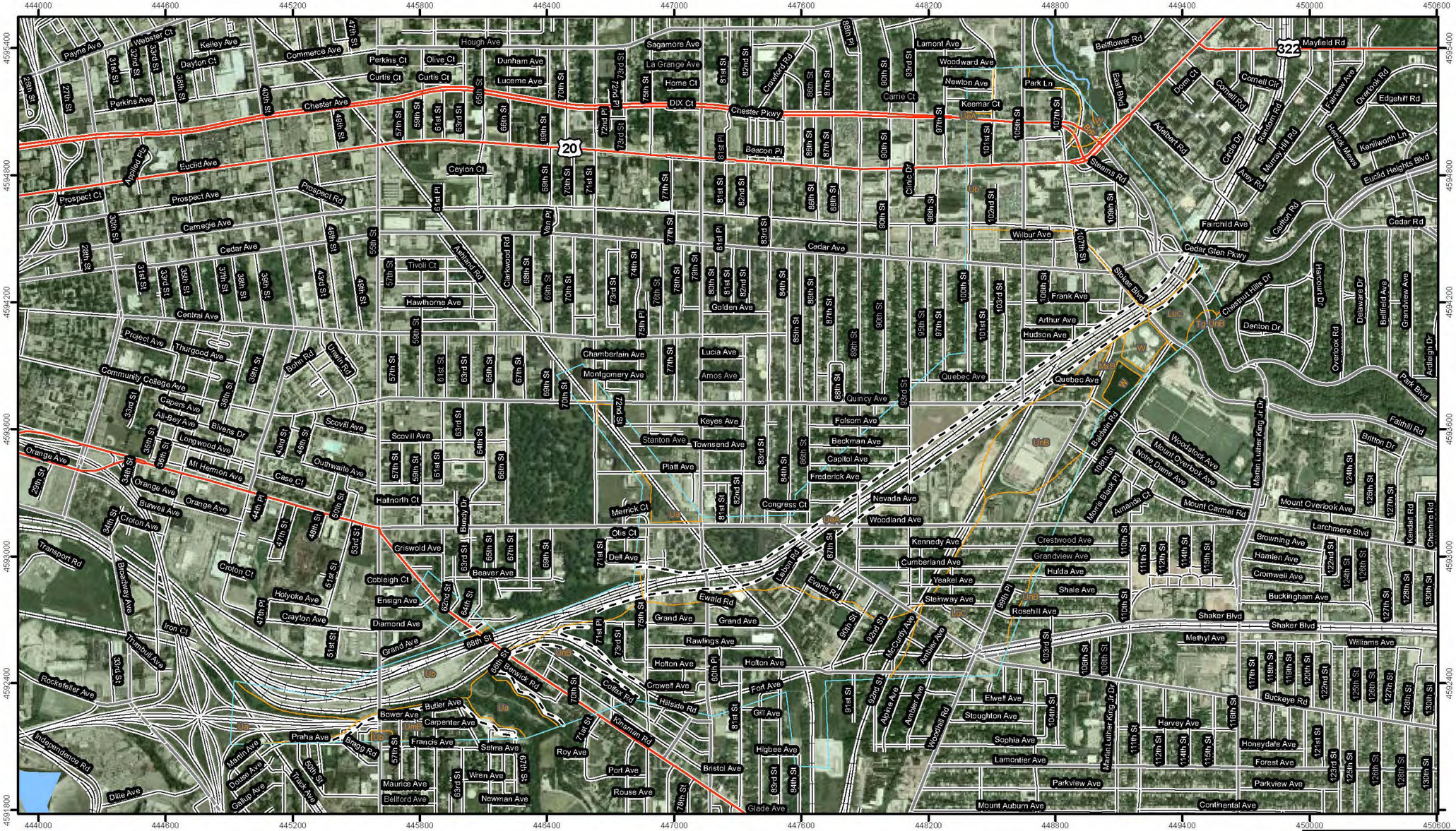

LEGEND
Land Cover Type
21 Developed, Open Space
22 Developed, Low Intensity
23 Developed, Medium Intensity
24 Developed, High Intensity
Study Limits
N
1000 0 1000 2000 Feet
FIGURE 2
OPPORTUNITY CORRIDOR
Land Cover Map (NLCD, 2001)
Baker
District 12 - Cleveland
Metro Area

Soil Map—Cuyahoga County, Ohio
(Opportunity Corridor)

81° 40' 19"
81° 35' 30"
41° 30' 34"
41° 30' 36"
41° 28' 32"
41° 28' 34"

444000 444600 445200 445800 446400 447000 447600 448200 448800 449400 450000 450600

4595400 4594800 4594200 4593600 4593000 4592400 4591800



Map Scale: 1:18,500 if printed on B size (11" x 17") sheet.

N

Meters	0	300	600	1,200	1,800
Feet	0	1,000	2,000	4,000	6,000

USDA Natural Resources Conservation Service

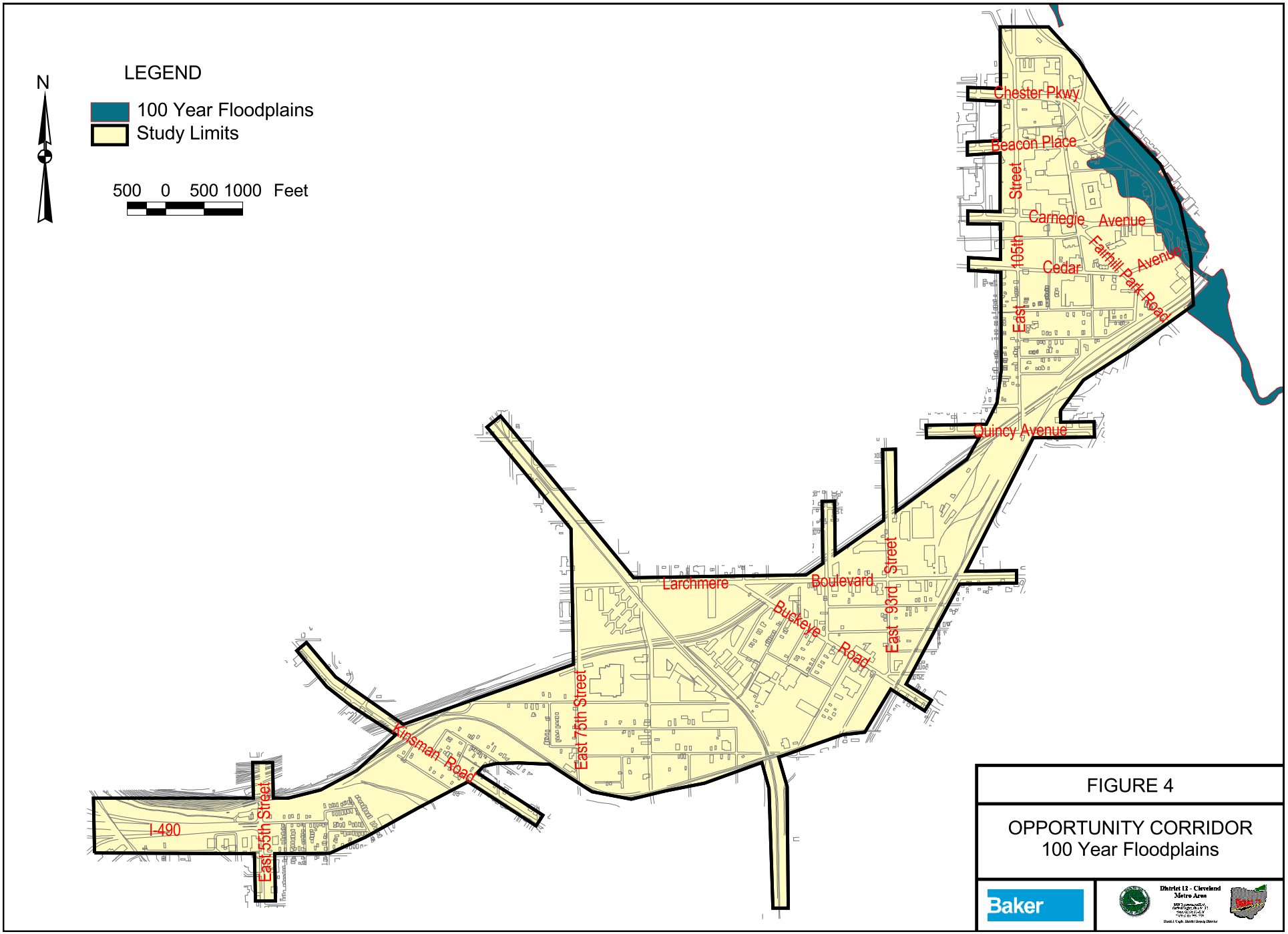
Web Soil Survey
National Cooperative Soil Survey

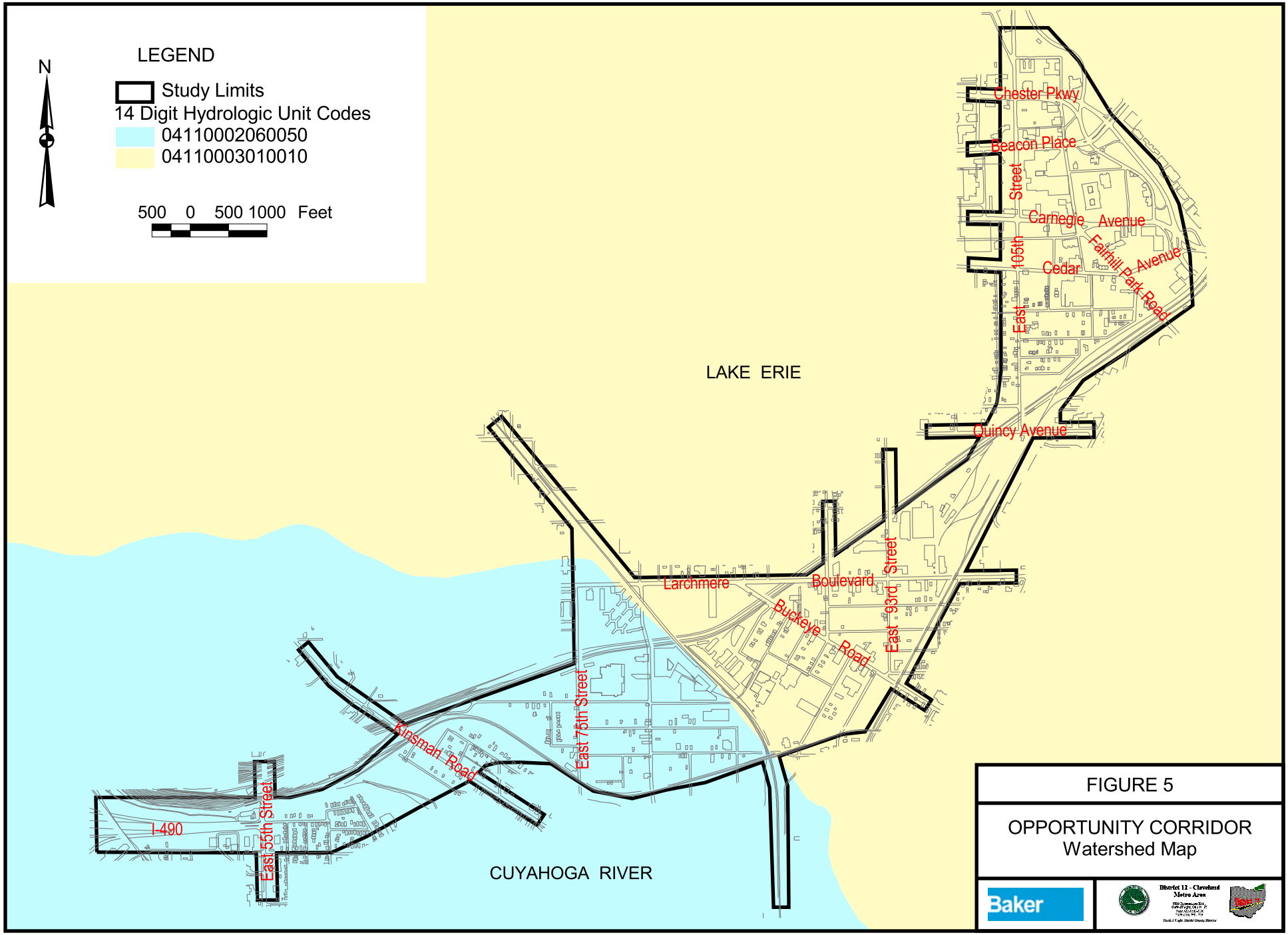
FIGURE 3

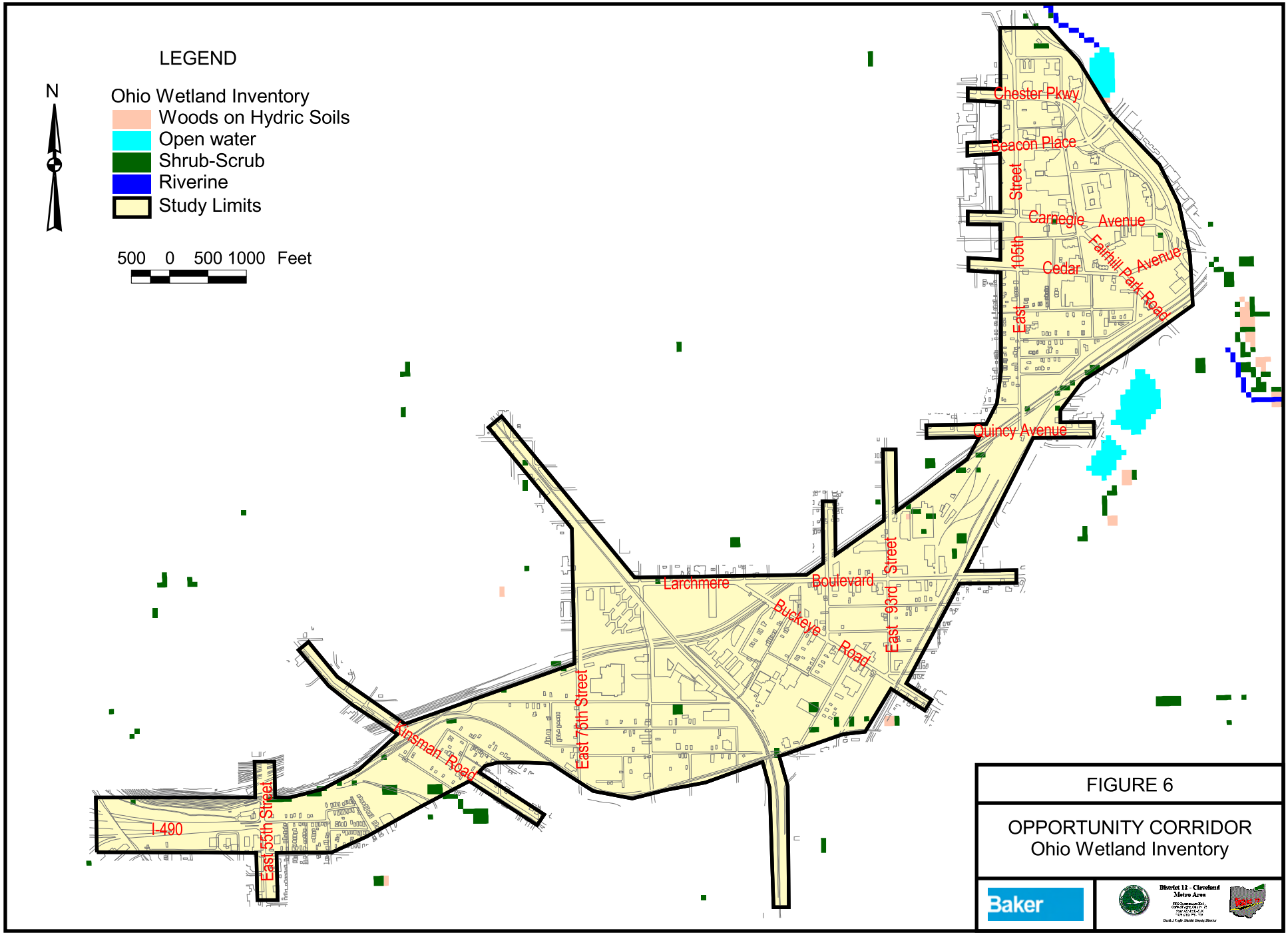
OPPORTUNITY CORRIDOR
Soil Map

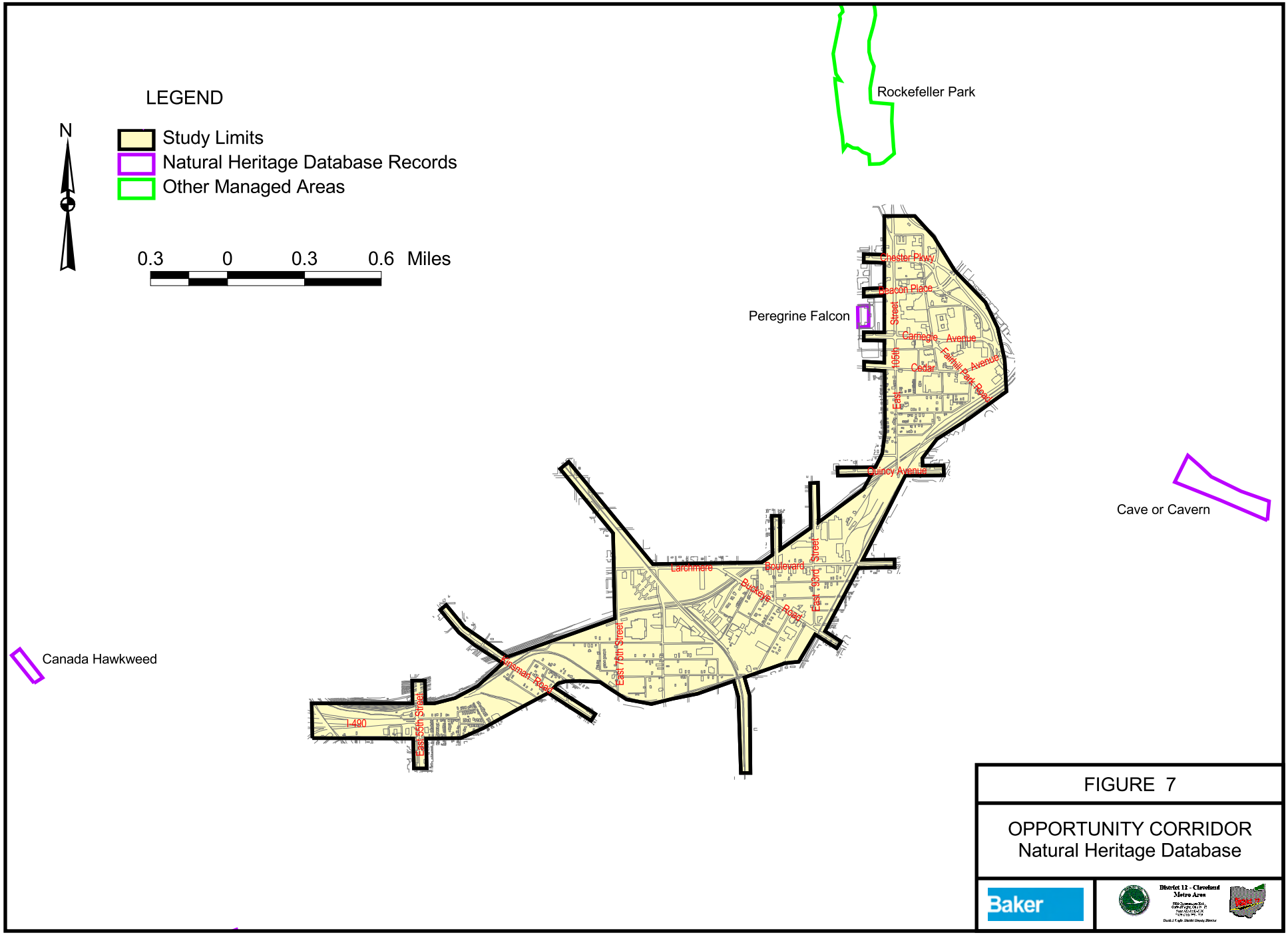
Baker

District 12 - Cleveland Metro Area


N
LEGEND
100 Year Floodplains
Study Limits
500 0 500 1000 Feet
Chester Pkwy
Beacon Place
East 105th Street
Carnegie Avenue
Fairhill Park Road
Cedar
Quincy Avenue
Larchmere
Buckeye Road
Boulevard
East 93rd Street
East 75th Street
Kinsman Road
East 55th Street
I-490
FIGURE 4
OPPORTUNITY CORRIDOR
100 Year Floodplains
Baker
District 12 - Cleveland
Metro Area


LEGEND
Study Limits
14 Digit Hydrologic Unit Codes
04110002060050
04110003010010
N
500 0 500 1000 Feet
LAKE ERIE
CUYAHOGA RIVER
Chester Pkwy
Beacon Place
East 105th Street
Carnegie Avenue
Cedar
Fairhill Park Road
Quincy Avenue
Larchmere
Buckeye Road
Boulevard
East 93rd Street
East 79th Street
Kinsman Road
East 55th Street
I-490
FIGURE 5
OPPORTUNITY CORRIDOR
Watershed Map
Baker
District 12 - Cleveland
Metro Area


LEGEND
N
Ohio Wetland Inventory
Woods on Hydric Soils
Open water
Shrub-Scrub
Riverine
Study Limits
500 0 500 1000 Feet
Chester Pkwy
Beacon Place
East 105th Street
Carnegie Avenue
Cedar
Fairhill Park Road
Quincy Avenue
Larchmere
Buckeye Road
Boulevard
East 93rd Street
East 79th Street
Kinsman Road
East 55th Street
I-490
FIGURE 6
OPPORTUNITY CORRIDOR
Ohio Wetland Inventory
Baker
District 12 - Cleveland
Metro Area


LEGEND
Study Limits
Natural Heritage Database Records
Other Managed Areas
N
0.3 0 0.3 0.6 Miles
Rockefeller Park
Peregrine Falcon
Cave or Cavern
Canada Hawkweed
Chester Pkwy
Beacon Place
Carnegie Avenue
Fairhill Park Road
Cedar
Quincy Avenue
Larchmere
Boulevard
Buckeye
Road
East 105th Street
East 79th Street
Kinsman Road
East 55th Street
I-490
FIGURE 7
OPPORTUNITY CORRIDOR
Natural Heritage Database
Baker
District 12 - Cleveland
Metro Area

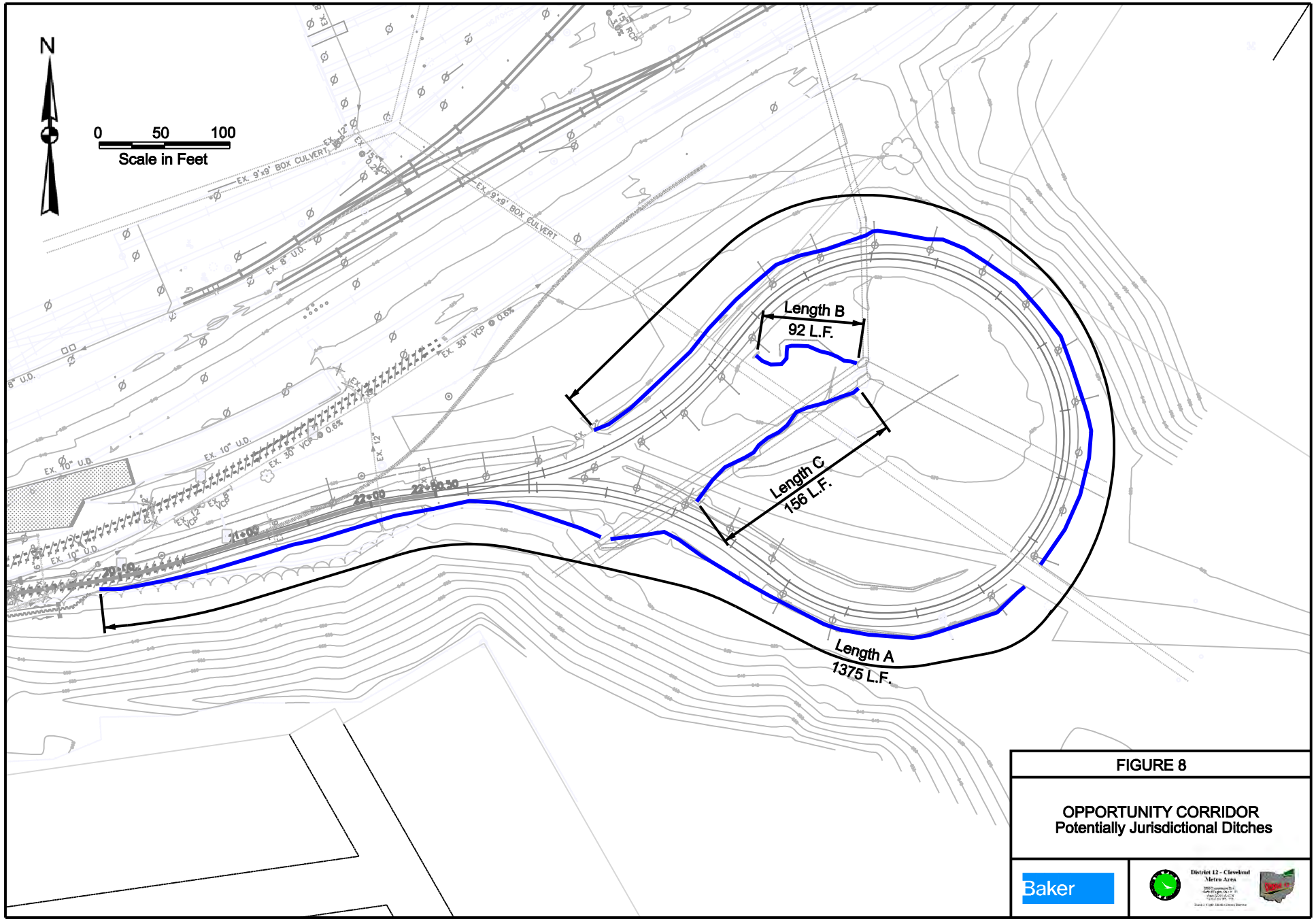


FIGURE 8

OPPORTUNITY CORRIDOR
Potentially Jurisdictional Ditches

Baker

District 12 - Cleveland Metro Area

APPENDIX B
PHOTOGRAPHS

N

0 600 1200
Scale in Feet

Study Area

Legend
16 Photo Location

...\Ohio_OC\Photo_Locations.dgn 1/6/2010

FIGURE

OPPORTUNITY CORRIDOR
Ecological Resources
Photo Log

Baker

District 12 - Cleveland Metro Area

Photo 1: East facing view along GCRTA tracks at west end of the project area.

Photo 2: East facing view at west end of the project area showing a typical scrub-shrub community.

Photo 3: East facing view of potentially jurisdictional Ditch A which feeds Kingsbury Run (a captured stream) located on GCRTA property.

Photo 4: South facing view of potentially jurisdictional Ditch A.

Photo 5: West facing view of culvert located at potentially jurisdictional Ditch B on GCRTA property.

Photo 6: South facing view of scrub-shrub community located within the infield of GCRTA loop near potentially jurisdictional Ditch C.

Photo 7: East facing view of Norfolk Southern main line at Kinsman Road with upland forested community in the background.

Photo 8: Southeast facing view of Norfolk Southern and GCRTA lines located at Kinsman Road.

Photo 9: Northeast facing view from Berwick Road showing low intensity developed space and vegetation typical of the middle portion of the project area, including small tracts of upland forest and maintained residential grasses.

Photo 10: South facing view of open space with mature trees sparsely growing along Holton Avenue.

Photo 11: West facing view along Holton Avenue showing a mix of grass, shrubs, and trees.

Photo 12: North facing view of low density development in the background.

Photo 13: Southwest view along Grand Avenue showing overgrown scrub-shrub vegetation typical of the project area located adjacent to the rail lines.

Photo 14: Southwest facing view (toward East 79th Street) along the Norfolk Southern rail corridor that traverses through the center of the project area.

Photo 15: West facing view from Sherman Court towards railroad corridor showing typical vacant land located within the project area.

Photo 16: South facing view at Quincy Avenue and East 105th Street showing developed areas with newly vegetated grassland in the foreground.

Photo 17: Northeast facing view of railroad corridor at Quincy Avenue and East 105th Street.

APPENDIX C
DATA FORMS
(N/A)

APPENDIX D
AGENCY CORRESPONDENCE

Ohio Department of Natural Resources

TED STRICKLAND, GOVERNOR SEAN D. LOGAN, DIRECTOR

Division of Natural Areas and Preserves
Anthony J. Celebreeze, III, Acting Chief
2045 Morse Rd., Bldg. F-1
Columbus, OH 43229-6693
Phone: (614) 265-6453; Fax: (614) 267-3096

September 29, 2009

Debra White
Michael Baker Jr., Inc.
1228 Euclid Ave., Suite 1050
Cleveland, OH 44115

Ms. White:

I have reviewed our Natural Heritage maps and files for the CUY-Opportunity Corridor project area, including a one mile radius, from I-490 to E. 105th St. in Cleveland, Cuyahoga County, and on the East Cleveland, Cleveland South and Shaker Heights Quads (119732). The numbers/letters on the list below correspond to the areas marked on the accompanying map. Common name, scientific name and status are given for each species.

Cleveland North/East Cleveland/Cleveland South/Shaker Heights Quads

A. Rockefeller Park - City of Cleveland
1. *Falco peregrinus* - Peregrine Falcon, threatened
2. Cave or Cavern
3. *Hieracium umbellatum* - Canada Hawkweed, threatened
4. *Falco peregrinus* - Peregrine Falcon, threatened

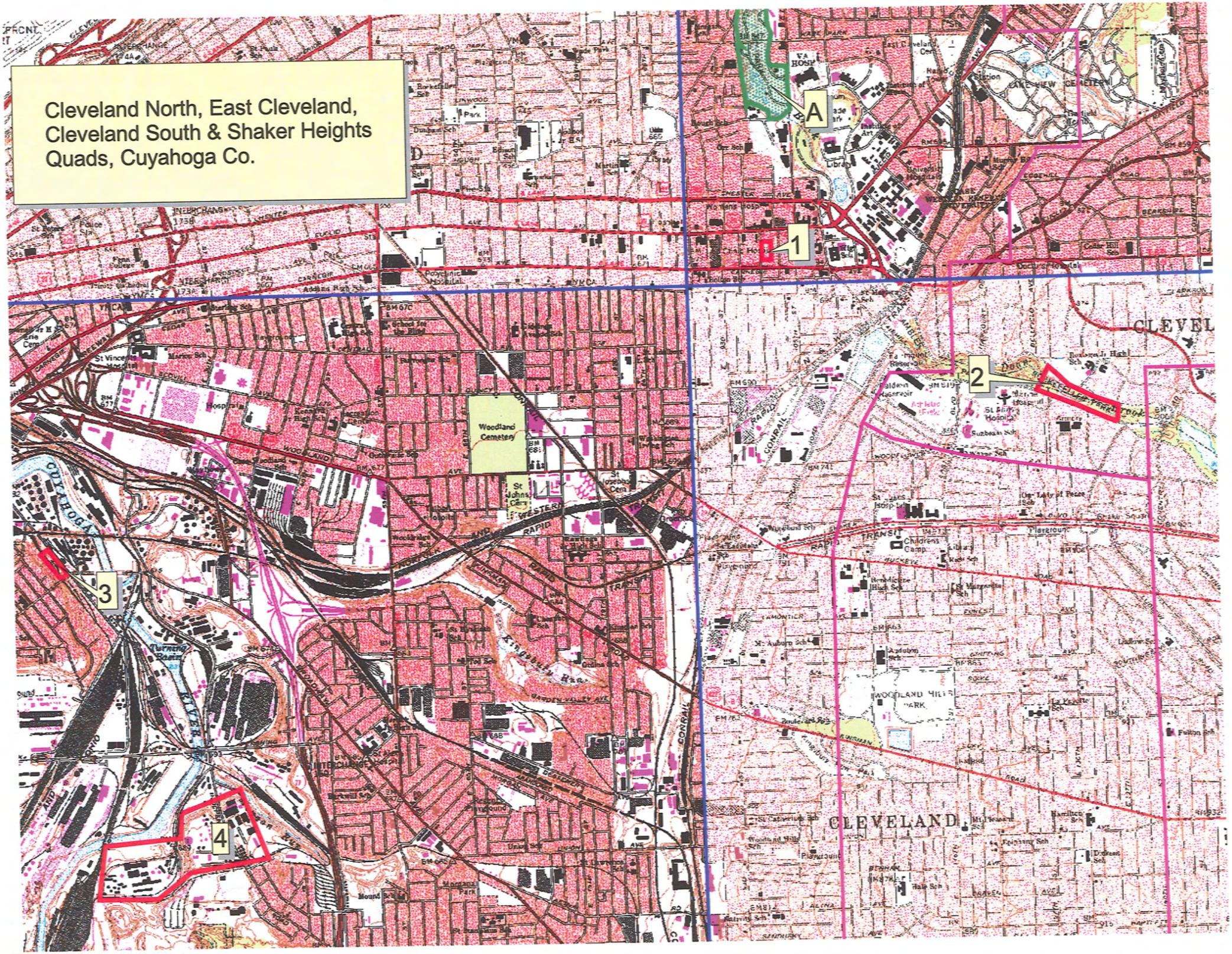
There are no dedicated state nature preserves or scenic rivers at the project site. We are unaware of any animal assemblages, state parks, state forests or state wildlife areas within a one mile radius of the project area. We also have no records for Indiana Bat (*Myotis sodalis*, state endangered, federal endangered) capture locations within a five mile radius or hibernacula within a ten mile radius of the project site.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke, Ecological Analyst
Natural Heritage Program


Cleveland North, East Cleveland, Cleveland South & Shaker Heights Quads, Cuyahoga Co.
A
1
2
3
4
Woodland Cemetery
CLEVELAND

Ohio Department of Natural Resources

TED STRICKLAND, GOVERNOR — SEAN D. LOGAN, DIRECTOR

Division of Natural Areas and Preserves
Anthony J. Celebreeze, III, Acting Chief
2045 Morse Rd., Bldg. F-1
Columbus, OH 43229-6693
Phone: (614) 265-6453; Fax: (614) 267-3096

September 29, 2009

Debra White
Michael Baker Jr., Inc.
1228 Euclid Ave., Suite 1050
Cleveland, OH 44115

Ms. White:

Per your request, I have e-mailed you a set of ArcView shape files with our Natural Heritage Database records for the CUY-Opportunity Corridor project ('data') in Cuyahoga County, and on the East Cleveland, Cleveland South and Shaker Heights Quads (project #119732). The files are projected in NAD83 Ohio State Plane South. The units are feet. This data will not be published or distributed beyond the scope of the project description on the data request form without prior written permission of the Natural Heritage Program.

Records included may be for rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, FE = federal endangered, FT = federal threatened and A=recently added to inventory, status not yet determined.

Also included is a layer for managed areas ('ma') which includes state nature preserves, state parks, state forests and state wildlife areas, national wildlife refuges, county metro parks, as well as sites owned by non-profit groups (such as The Nature Conservancy), museums (such as the Cleveland Museum of Natural History), and others. Please be aware that the managed areas layer may not be complete. We are continually updating this layer as additional information becomes available to us.

I have also performed a search for Indiana Bat (*Myotis sodalis*, state endangered, federal endangered) capture sites within a five mile radius and hibernacula within a ten mile radius. If any records were found, this layer will be included and labeled "ib".

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke, Ecological Analyst
Natural Heritage Program

Woischke, Debbie

From: Woischke, Debbie
Sent: Tuesday, September 29, 2009 1:21 PM
To: 'White, Debra'
Subject: Natural Heritage Data, 119732

Ms. White:

Per your request, I have e-mailed you a set of ArcView shape files with our Natural Heritage Database records for the CUY-Opportunity Corridor project ('data') in Cuyahoga County, and on the East Cleveland, Cleveland South and Shaker Heights Quads (project #119732). The files are projected in NAD83 Ohio State Plane South. The units are feet. This data will not be published or distributed beyond the scope of the project description on the data request form without prior written permission of the Natural Heritage Program.

Records included may be for rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, FE = federal endangered, FT = federal threatened and A=recently added to inventory, status not yet determined.

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Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas.

Per your request, I have also performed a manual search for this project. That letter and map will be mailed along with a hard copy of this letter and the invoice. Please contact me at 614-265-6818 if I can be of further assistance.


ma.shx (3 KB)


data.dbf (6 KB)


data.sbn (3 KB)


data.sbx (3 KB)


data.shp (4 KB)


data.shx (3 KB)


ma.dbf (3 KB)


ma.sbn (3 KB)


ma.sbx (3 KB)


ma.shp (5 KB)

Debbie Woischke, Data Specialist
Ohio Department of Natural Resources
Division of Natural Areas & Preserves
Natural Heritage Program
2045 Morse Rd., Bldg. F-1
Columbus, OH 43229
(phone) 614-265-6818
(fax) 614-267-3096